been found in Cambridgeshire, Essex, Somerset and from an additional site in Berkshire (J. W. Ismay, pers. comm.). Much has been made of the association with wood ash.

During the early evening of 18.viii.2002 I swept a single female of this species from around a patch of burnt wood ash at Tyler Hill Meadow near Canterbury, O.S. grid reference TR 137611. As the ash was still warm the fire was assumed to have been started the previous day, but it was not possible to discern the material from which it had been made. The site consists of 2.1 acres of unimproved/semi improved neutral grassland, bramble and mixed willow/hawthorn scrub and oak woodland.– LAURENCE CLEMONS, 14 St. John's Avenue, Sittingbourne, Kent ME10 4NE.

Hydriomena furcata Thun.(Lep. Geometridae): Melanism in north-west Kent and elsewhere

Kettlewell (1973. *The Evolution of Melanism*), mentions two melanic forms of *Hydriomena furcata*, the July Highflier – the black ab. *nigra* Hackray for Yorkshire and the London area and ab. *obscura* Peyer, a non-industrial melanic occurring in the Highlands of Scotland and south-west Ireland but an industrial melanic in Lancashire and Yorkshire, described as unicolorous fuscous, or nearly so.

It is this form, presumably as an industrial melanic, that has dominated the *furcata* population here at Dartford. Although Kettlewell mentions ab. *nigra* in the context of London, and not *obscura*, and even though some *furcata* here have appeared blackish when freshly emerged, they have not possessed the dark hind wings of *nigra*.

The *H. furcata* that have been regular visitors to my garden MV light have been of the sallow feeding race, and although from 1969 until 1978 they occurred only in single figures annually, subsequently they increased to between twenty and thirty. For twenty years from 1969, all examples were ab. *obscura*. Then, in 1988, the sequence was broken with the arrival of an example of an ab. *goodsoni* Cockayne, a greenish form with prominent, wide dark bands It is a form figured in Barrett (1902. *The Lepidoptera of the British Islands*, VIII, fig. 1f.), which appears to have a wide distribution as I have almost identical specimens from Rinnamona, Co. Clare. The next non-melanic example was noted in 1996, an ab. *sordidata* Fabr., greenish with dark, narrow bands, resembling the type form but with green replacing the cinereous ground colour. This form appears to be slowly replacing a proportion of the melanic *obscura* in an irregular pattern, doubtless due to the small samples each year; in 2002 melanics remain dominant at over 75%, and all non-melanics since 1996 have been ab. *sordidata*. Thus there has not been the spectacular decline in melanism as seen with H. impluviata D. & S. (*coerulata* Fabr.) here (West, 1992. *Ent. Rec.* **104**: 329).

North-west Kent is fortunate in being a region covered by two very good comprehensive works on the Lepidoptera. Chalmers-Hunt (1971. *The Butterflies and Moths of Kent*, suppt. to *Ent. Rec.*), mentions neither ab. *obscura* nor ab. *nigra*, and these forms are not included in his list of aberrations from Kent in the National Collection. Plant (1993. *The Larger Moths of the London Area*. LNHS) also makes no mention of melanism in this species.

The aberration *obscura* is not confined as a melanic in north-west Kent; my series of *furcata* from Orlestone Forest in rural East Kent contains one specimen of this form

dated 17.vii.1963, suggesting that it might be much more widespread than Kettlewell supposed. If this be so, *furcata* may retain a residue of ab. *obscura* in northwest Kent as appears to be happening with *Acronicta rumicis* L. and its melanic form *salicis* Curtis.

Chalmers-Hunt (*op. cit.*) notes that ab. *sordidata* from extreme north-west Kent is very well represented in the National Collection with specimens caught in the late 19th and early 20th centuries, so it is not surprising that it should be this form to replace the melanic *obscura*, partially or completely, in the future. That the National Collection should possess many specimens of *sordidata* from north-west Kent, taken as late as the early 20th century, suggests, particularly in the absence of any melanics, that melanism was a comparatively late event. In the 1960s and 1970s, ab *sordidata* was the prevalent form in Orlestone Woods.

According to Kettlewell (*op. cit.*), ab. *obscura* occurs as a non-industrial melanic in south-west Ireland and the Highlands of Scotland. However, was this reference to the sallow *Salix*- feeding race or to the smaller heather *Calluna*-feeding or bilberry *Vaccinium*-feeding race, or to both? I cannot comment on the *furcata* of south-west Ireland, but Co. Clare to the north has a coast which one might expect to have the climatic features associated with Kettlewell's Western Coastline Melanism. However, my series of *furcata* from the coast at Panore and further inland at Rinnamona show no indication of its presence; the larvae would have probably fed on sallow or hazel *Corylus*. Contrary to expectation, quite bright and well marked specimens seem to dominate the populations, with *sordidata* and typical specimens being the most frequent, but most surprising is the high incidence of such striking forms as ab. *goodsoni*. Another of these is ab. *constricta* Strand which has a prominent, broad, pale median band divided into anterior and posterior halves; my specimens of this form have in addition a white sub-basal fascia.

In the Highlands of Scotland, ab. *obscura* is presumably of the high latitude/high altitude type of melanism, but my experience of it has been largely restricted to the smaller heather or bilberry race. In early August 1976, I found *H. furcata* abundant on the mountains of Arran, and obtained a long series off the heather at Gnoc a Chapuill. About 90% were melanics, ab. *obscura*, darker (blacker or very dark brown) than Kentish specimens. However, the population contains a sprinkling of typical specimens and ab. *sordidata*, but more commonly what might be termed sub-varieties of the melanic *obscura*. These include ab. fasciata Nitsche, having a narrow, but distinct whitish median fascia, and the more familiar ab. albipunctata Nitsche, with a pale submarginal spot at the midpoint of the termen, a feature which seems to occur to some degree in most *furcata* populations. Regarding the mainland of Scotland I can only comment that bilberry/heather feeding race specimens at Dunblane, Perthshire, a lowland situation, give a large proportion of typical specimens and ab. *sordidata*, and few melanics.

The north-west Kent populations of *H. furcata*, and those of several other localities I have visited, have revealed some interesting information, but as is usual questions are left open. Thus, is the heather/bilberry race in the central Highlands of Scotland and the Southern Uplands mainly of f. *obscura*, and allied forms, and to what extent do melanics prevail in the sallow-feeding race there?– B. K. West, 36 Briar Road, Dartford, Kent DA5 2HN.